



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,439	04/15/2004	Haoyun An	6319-3000	1057

29858 7590 05/15/2006

BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP
900 THIRD AVENUE
NEW YORK, NY 10022

EXAMINER

TUCKER, ZACHARY C

ART UNIT	PAPER NUMBER
----------	--------------

1624

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,439	Applicant(s) AN ET AL.	
	Examiner Zachary C. Tucker	Art Unit 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-8 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

As requested in the correspondence from applicants, filed 1 May 2006, claim 5 has been cancelled and claim 7 has been amended.

Election/Restrictions

A Requirement for Restriction in this application was mailed to applicants on 28 March 2006, setting forth four restriction Groups. In the setting forth of the Restriction Groups, error was made in assigning claim numbers to the Groups.

The Groups should have been set forth as follows:

Group I – claims 1-4 and 6,

Group II – claim 5,

Group III – claims 7 and 8 (both in part),

Group IV – claims 7 and 8 (both in part).

Cancellation of instant claim 5 pursuant to applicants' 1 May 2006 request accompanying the reply to the Requirement for Restriction has eliminated Restriction Groups II and IV.

In the applicants' reply to the Requirement for Restriction, filed 1 May 2006, Group I (claims 1-4 and 6) was elected. Since the reply did not specify whether the election was made with or without traverse, the election is being treated as an election made *without* traverse (MPEP § 818.03(a)).

Claims 7 and 8 are withdrawn from further consideration at this time pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention. Upon a finding that the

Art Unit: 1624

elected Group is allowable, claims 7 and 8 will be rejoined and examined for patentability under all applicable U.S. statutes.

Claim Rejections - 35 USC § 112

The following is a quotation of the first and second paragraphs of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In Formula 4, the variable "W" is not defined in the claim, nor is there any description in the application of a compound of Formula 4, with variable "W" in the structure diagram. As such, Formula 4 compounds cannot be said to have been in the inventors' possession at the time the invention was made.

Claims 1-4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Every claim 1-4 and 6 includes multiple recitations of "heterocycle" and "substituted." Which heterocycles are contemplated and which substitutions are

Art Unit: 1624

contemplated by these claim limitations are not made clear from a reading of the terms in light of the specification.

In the paragraph bridging pages 3 and 4, a supposed definition of "heterocycle" is offered, but this description of what applicants intend the term to signify is non-limiting and does not concretely describe any particular group of heterocycles. Only an exemplary list of "particularly contemplated heterocycle bases" is provided. The term "heterocycle," however is not limited to only the particularly contemplated identities for the term, the broadest reasonable interpretation of "heterocycle" as a claim limitation must be clear. The broadest definition provided merely specifies that "heterocycle" refers to "any compound in which a plurality of atoms form a ring via a plurality of covalent bonds, wherein the ring includes at least one atom other than a carbon atom." This definition actually does not require any carbon atoms at all.

Given this vague definition of the term "heterocycle" from the specification, in order for one of ordinary skill to understand the true scope of applicants' claims, he must look to the commonly accepted definitions of the term in the art to determine the scope of a patent claim in which the term appears.

More than one definition of the general term "heterocyclic" or "heterocycle" is accepted by those of ordinary skill in the art of organic chemistry.

Some consider cyclic organic compounds wherein at least one carbon atom is replaced by sulfur, oxygen or nitrogen to be heterocyclic compounds, while others of ordinary skill include selenium, tellurium, boron or tin containing rings to be within the

Art Unit: 1624

scope of the term “heterocyclic” as it is commonly used, and some definitions of “heterocyclic” do not require carbon to be present at all.

The examiner directs applicants’ attention to the following three references:

On page 200 of the McGraw-Hill Dictionary of Chemical Terms, the definition of “heterocyclic compound” is a compound in which the ring structure is a combination of more than one kind of atom.

On page 490 of the Concise Encyclopedia Chemistry, the definition of “heterocycles” is cyclic hydrocarbon compounds in which the ring consists of carbon and at least one other element, usually, N, O or S. The definition goes on to explain that the possibilities for synthesis are nearly unlimited, and that compounds wherein the heteroatoms are of elements like phosphorous, arsenic, selenium, and tellurium are being incorporated with increasing frequency.

On page 594 of Hawley’s Condensed Chemical Dictionary, “heterocyclic” is defined as a closed-ring structure, usually, either 5 or 6 members, in which one or more of the atoms in the ring is an element other than carbon, *e.g.* sulfur, nitrogen, *etc.*

These three definitions should make it abundantly clear that there is no one specific and exact definition of the word “heterocyclic,” thus when this term is present as a claim limitation, the metes and bounds of protection are not pointed out and distinctly claimed. Though the three above-cited definitions of the term have some shared aspects, chemists of ordinary skill would not necessarily agree on the full scope and meaning of the term “heterocyclic.”

Art Unit: 1624

Applicants may argue that “heterocyclyl” has been fully defined in the specification, and therefore the requirements of 35 U.S.C. 112, second paragraph, have been met with respect to those claims in which “heterocycle” appears as a limitation.

The examiner would respond by pointing out the fact that while it is proper to use the specification to interpret what the applicant meant by a word or phrase recited in the claim, it is not proper to read limitations appearing in the specification into the claim when these limitations are not recited in the claim. See *In re Paulsen*; 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994); *Intervet America Inc. v. Kee-Vet Lab. Inc.*, 887 F.2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989). In the instant case, it would not be proper to limit the term “heterocycle” to only the particularly preferred identities of that term which are offered at the top of page 4 of the instant specification.

Insofar as the numerous recitations of “substituted” with respect to alkyl groups, heterocycles, fused heterocycles, and others, the “particularly preferred” list of substituent groups enumerated in the instant specification at page 5, in the first full paragraph, does not limit the scope of the term “substituted” to only those preferred identities therefor when recited as a claim limitation. To limit the scope of the term “substituted” to only those *preferred* substitutions which are set out in the specification would be improper, as explained in the citation from *In re Paulsen* and *Intervet America Inc. v. Kee-Vet Lab* above.

The term “fused heterocycle” is indefinite as well, and is recited in every claim 1-4 and 6, because what exactly is fused to the heterocycle in question is not defined in

Art Unit: 1624

the claims *or* in the specification. The single mention of fused heterocycles, at the top of page 4 of the specification states that the term signifies a heterocycle “covalently bound” to another heterocycle. This, however, is not the art-accepted definition of what constitutes a fused ring, heterocycle or not. A fused ring is one ring which is bonded at at least two ring positions to another ring. A fused ring is not simply a ring “covalently bound” to another. Because no specific definition for “fused heterocycle” is provided in the specification, and further because the vague, non-specific definition that is provided actually is *repugnant* to the actual art-accepted meaning of the term, “fused heterocycle” when recited as a claim limitation, renders the claims indefinite in which it appears.

In claim 4, the variable “W” is not defined, rendering claim 4 indefinite, in addition to the reasons given above, insofar as “heterocycle” and “substituted” with no recitation of what substituents are contemplated are concerned.

In claim 6, a definition of “R” is provided, but no variable “R” is in the structure diagrams for Formula 7 or in the definition of any of the structural variables. In the definition of R₃, the statement “wherein R may further optionally include a COOH group that is covalently coupled to R via zero to three atoms” appears. Leaving aside the fact that there is no “R” group in Formula 7, it is not understood how a functional group could be covalently bound to another via “zero” atoms.

The MPEP directs the examiner to apply art against a claim if the degree of uncertainty about the claim’s meaning is not great, and where at least one interpretation of that claim would render it unpatentable over the prior art (2173.06). Claims 1-4 and 6 have been examined on the merits as though the definition of “heterocycle” were limited

Art Unit: 1624

to those “particularly contemplated” identities listed on page 4 of the specification, and similarly, as though the definition of “substituted” were limited to those “particularly contemplated” substitutions that are set out at page 5, in the first full paragraph.

It has been assumed that “W” in claim 4, Formula 4, was supposed to be an oxygen atom. References to a variable “R” in claim 6 have been ignored.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

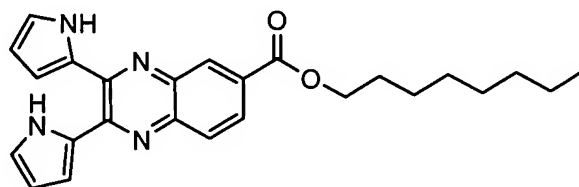
Claim 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent Application Publication 2004/0006104 (Bush et al). In section [0086] and [0087] – Example IV, the compound (2S)-3-phenyl-2-[(1-quinoxalin-6-ylmethanoyl)amino]propionic acid is synthesized, from an intermediate which is the *t*-butyl ester thereof. Both compounds are embraced by instant claims 1 and 2, wherein R₁, R₂, R₄ are all H; Z is NH; X in claim 1 is either –OH or OR, with R being alkyl (*t*-butyl); X in claim 2 is COOR, with R being either H or alkyl (*t*-butyl); the “()₀₋₃” element

Art Unit: 1624

in Formulae 1 and 2 is equal to one in both claims 1 and 2, and R_3 in both claims 1 and 2 is aryl (phenyl).

Claim 2 is rejected under 35 U.S.C. 102(a) and 102(e) as being anticipated by US 6,482,949 (Sessler et al). The Sessler et al patent was published 19 November 2002, before invention was made by applicants (but less than one year prior), and was filed 26 May 2000, before the provisional application upon which the instant application is based was filed.

Example 20, in column 24, discloses the preparation of the octyl ester of 2,3-dipyrrol-2'-yl-6-carboxyquinoxaline. The compound has this structure:

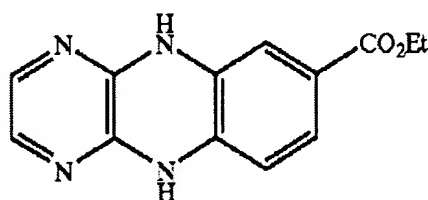


and is embraced by instant claim 2 wherein R_1 and R_2 are heterocycle (2-pyrrolyl); R_4 is H; Z is O; X is R, wherein R is H, and the “()₀₋₃” element is either zero, one, two or three, and R_3 is unsubstituted alkyl (heptyl, hexyl, pentyl or butyl, respectively, depending on what the “()₀₋₃” element is equal to).

Claim 2 is rejected under 35 U.S.C. 102(a) and 102(e) as being anticipated by US 6,518,423 (Kaneko et al). Kaneko et al was published 11 February 2003, before invention was made by applicants (but less than one year prior), and was filed 8 August 1997, before the provisional application upon which the instant application is based was filed.

Art Unit: 1624

Example 774, in column 671 of Kaneko et al, discloses the preparation of ethyl (5,10-dihydro-10*H*-pyrazino[2,3-*b*][1,4]quinoxaline-7-yl)carboxylate, which has this structure:



and is embraced by instant claim 2 wherein R_1 and R_2 together with the carbon atoms to which they are attached form a 6-membered ring; R_4 is H; Z is O; X is R, wherein R is H; the “()₀₋₃” element is one; and R_3 is alkyl (methyl).

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by US 6,103,720 (Lubisch et al).

Example 20, in column 25 of Lubisch et al, discloses (S)-N-(1-carbamoyl-1-oxo-3-phenylpropan-2-yl)-4-(quinoxaline-6-ylamido)methylbenzamide, which is embraced by instant claim 2 wherein R_1 , R_2 and R_4 are H; Z is NH; X is R, wherein R is H; the “()₀₋₃” element is zero and R_3 is substituted aryl.

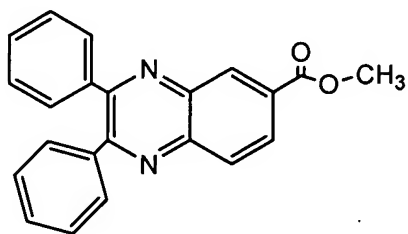
The substituent on the substituted aryl of R_3 in Lubisch et al's compound of Example 20 is a “polar group” as defined on page 5, line 7 of the instant specification. The substituent on the group which corresponds to R_3 of instant claim 2 comprises two amide groups – amide groups are “polar.”

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by US 3,656,953 (Schlunke and Ronco). The Schlunke and Ronco patent discloses a silver dyestuff bleaching process using quinoxaline catalyst. At least two of the quinoxaline catalyst

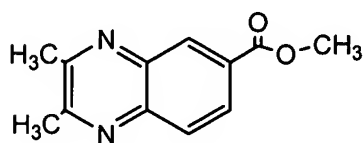
Art Unit: 1624

compounds are embraced by instant claim 2. These compounds are found in Table I, at the bottom of columns 9 and 10.

Compounds designated "J" and "V" in Table I, have these two structures:



"Compound J"



"Compound V"

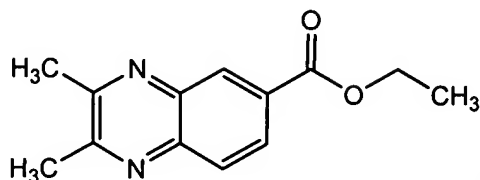
and are embraced by instant claim 2 wherein R_1 and R_2 are either both aryl (phenyl) or both alkyl (methyl); R_4 is H; Z is O; X is R, wherein R is H; "()₀₋₃" is equal to zero; and R_3 is alkyl (methyl).

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Silk, J.A. "Quinoxaline N-Oxides. V. Further bz-Substituted Derivatives" Journal of the Chemical Society, pages 2058-2063 (1956).

Two compounds reported in the Silk article are embraced by instant claim 2. These are both disclosed on page 2061:

Ethyl 2,3-dimethylquinoxaline-6-carboxylate, which has this structure;

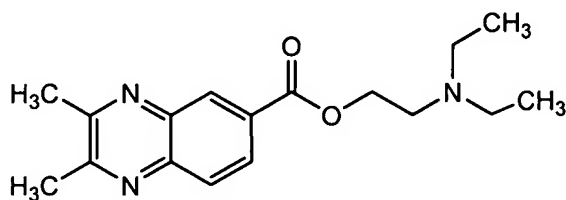
Art Unit: 1624



and is a compound according to claim 2

wherein R_1 and R_2 are both alkyl (methyl); R_4 is H; Z is O; X is R, wherein R is H; “()₀₋₃” is zero and R_3 is alkyl (methyl).

2'-diethylaminoethyl-2,3-dimethylquinoxaline-6-carboxylate, which has this structure:



and is a compound according to claim 2

wherein R_1 and R_2 are both alkyl (methyl); R_4 is H; Z is O; X is R, wherein R is H; “()₀₋₃” is zero and R_3 is substituted alkyl (methyl, substituted with dimethylaminoethyl, which is an $-NH_2$ group, further substituted with two alkyl groups, as provided for on page 5 of the specification).

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Gum and Joullié "Structure vs. Reactivity in Quinoxalinecarboxylic Acids and Esters" Journal of Organic Chemistry, vol. 30(11), pages 3982-3985 (1965).

Ethyl 6-quinoxalinecarboxylate is disclosed in Table III, on page 3983, the compound designated "XII," the last one in the table, in the series of experiments in which Gum and Joullié measure infrared absorption of various types of carbonyl functions in different quinoxaline carboxylic acids and ester compounds.

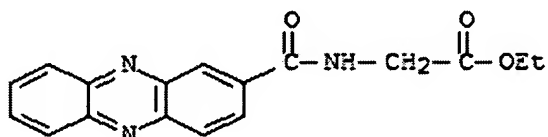
Art Unit: 1624

Ethyl 6-quinoxalinecarboxylate is a compound according to claim 2 wherein R_1 , R_2 and R_4 are all H; Z is O; X is R, wherein R is H; "()₀₋₃" is zero and R_3 is alkyl (methyl). The structure is that of the ethyl ester compound structure shown above in the rejection over Silk, sans the dimethyl substitution.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Batulina et al, "N-Oxides of N-phenazinoyl Derivatives of Some α -Amino Acids" Khimiko-Farmatsevticheskii Zhurnal, vol. 4(11), pages 18-22 (1970), AS ABSTRACTED BY CAPLUS. The abstract is relied upon in this rejection, and is submitted herewith for applicants' review.

Two compounds disclosed in the Batulina et al article anticipate claims 1 and 2.

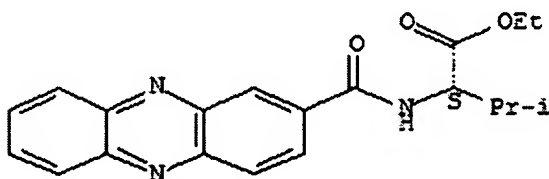
One compound, whose structure is shown here:



is embraced by instant claim 2, wherein

R_1 and R_2 together with the carbon atoms to which they are form a six-membered ring; R_4 is H; Z is NH; X is R, wherein R is H; "()₀₋₃" is zero R_3 is substituted alkyl (methyl, substituted with two "polar" groups – a carbonyl and a methoxy group).

The other compound, whose structure is shown here:



is embraced by instant claims 1 and 2,

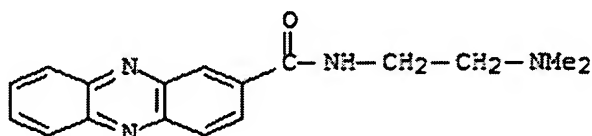
wherein R_1 and R_2 together with the carbon atoms to which they are form a six-

Art Unit: 1624

membered ring; R_4 is H; Z is NH; X in claim 1 is OR, wherein R is alkyl (ethyl); X in claim 2 is COOR, wherein R is alkyl (ethyl); "()₀₋₃" is zero and R_3 is alkyl (isopropyl).

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Spicer et al, "Dimeric Analogs of Non-Cationic Tricyclic Aromatic Carboxamides are a New Class of Cytotoxic Agents" Anti-Cancer Drug Design, vol. 14(3), pages 281-289 (1999).

On page 283, a series of compounds are reported. These compounds are tumor growth-inhibiting compounds. The compound designated "9" is a compound according to instant claim 2, having this structure:



which is embraced by claim 2 wherein

R_1 and R_2 together with the carbon atoms to which they are form a six-membered ring; R_4 is H; Z is NH; X is R, wherein R is H; "()₀₋₃" is zero and R_3 is alkyl (methyl), substituted with $-NH_2$, which is further substituted with two alkyl groups (dimethylamino).

Allowable Subject Matter
~and~
Comments on Withdrawn Claims

Claim 3 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action. No disclosure of a compound according to claim 3 was found in a search of the prior art, nor any suggestion rendering a compound according to claim 3 obvious.

Art Unit: 1624

Claim 4 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112, first and second paragraph, set forth in this Office action.

Replacing "W" with an oxygen atom would overcome the first paragraph rejection. No disclosure of a compound according to claim 4 was found in a search of the prior art, nor any suggestion rendering a compound according to claim 4 obvious.

Claim 6 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action. No disclosure of a compound according to claim 6 was found in a search of the prior art, nor any suggestion rendering a compound according to claim 6 obvious. Deletion of the references to a variable "R" in claim 6 would overcome the part of the indefiniteness rejection based on the presence of the definitions for that variable in the body of claim 6.

To overcome the rejections under 35 U.S.C. 112, second paragraph, of claims 1-4 and 6, on the grounds that "heterocycle" and "substituted" are indefinite, it is recommended that applicants incorporate as a Markush group (*i.e.* "selected from the group consisting of...") the "particularly contemplated" identities of "heterocycle" and "substituted" which are found in the specification. Insofar as the "substituted" "particularly contemplated" identities are concerned, only those *specific* functional groups which are named would overcome the indefiniteness rejection. If, for example, "substituted" were to be defined in the claims as being selected from the group consisting of "nucleophile groups, electrophile groups, polar groups, nonpolar groups, and ionic groups," as is set forth on page 5 of the instant specification, that would constitute a new ground of rejection, necessitated by amendment. Only those specific

Art Unit: 1624

substituents should be introduced into the claims as a Markush group from which "substituents" are to be selected.

The closest prior art with respect to instant claims 3, 4 and 6 is applied in rejections of claims 1 and 2 in this Office action, under 35 U.S.C. 102.

Cited of interest, but not relied upon in any claim rejection are:

US 3,510,487 (Bolhofer and Baldwin), which discloses 2,3-dichloroquinoxaline-6-carboxamide compounds. These compounds are not within the scope of any of the instant claims, because none of the instant claims provide for halogen as an identity for R_1 or R_2 . All of Bolhofer and Baldwin's compounds must have the 2,3-dichloro substitution on the quinoxaline ring system core.

Relevant to instant claim 3, but not embraced by that claim, nor suggestive of the compounds according to instant claim 3 is Kora et al, "Synthesis and Antimicrobial Activity of Some New 2,3-dichloroquinoxaline-6-sulfonyl Amino Acid Derivatives" Polish Journal of Chemistry, vol. 62(7-12), pages 749-756 (1988).

The abstract from CAS Online (STN) is submitted for applicants' review. All of Kora et al's compounds must be 2,3-dichloro-substituted. None of the compounds are not thusly substituted. No suggestion to make non-dichloro substituted compounds is put forth in Kora et al and therefore compounds according to instant claim 3, which cannot have any halogen substitution at R_1 or R_2 are not obvious over Kora et al.

Claim 8 is enabled only for the treatment of hepatitis C, but the claim as drafted embraces the treatment of any and all viral diseases. Inhibition of hepatitis C NS5B RNA polymerase is the only pharmacological activity demonstrated in the instant

Art Unit: 1624

specification. Assertion that a showing of activity against hepatitis C viral replication is demonstrative of utility in treating all viral diseases is incredible.

Specification

The abstract of the disclosure is objected to because it is no more descriptive of the present invention than is the *title* of the application. To be properly descriptive of the present invention, the examiner would submit that some generic structure of the compounds according to the invention, or at least the most preferred embodiment of the compounds, should be depicted in the abstract.

Correction is required. See MPEP § 608.01(b).

Conclusion

Any inquiry concerning this communication should be directed to Zachary Tucker whose telephone number is (571) 272-0677. The examiner can normally be reached Tuesday-Thursday from 8:00am to 4:30pm or Monday from 6:00am to 1:30pm. If Attempts to reach the examiner are unsuccessful, contact the examiner's supervisor, James O. Wilson, at (571) 272-0661.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

zt

A handwritten signature in black ink, appearing to be 'Zachary Tucker', written over the 'zt' text.